This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Canceled)

Claim 2. (Canceled)

Claim 3. (Canceled)

Claim 4. (Previously Presented) The method of Claim 10 wherein said tissue is irradiated with microwaves at a frequency of 2450 MH_z for a net period of time from 1 hour to 1 week.

Claim 5. (Previously Presented) The method of Claim 10 wherein said native tissue to be treated is soft tissue including vascular vessel, heart valve, heart sac, cornea, amonion and dura.

Claim 6. (Canceled)

Claim 7. (Previously Presented) The method of Claim 10 wherein said native tissue to be treated is an organ or part thereof including heart, kidney, liver, pancreas, brain and part thereof.

Claim 8. (Previously Presented) The method of Claim 10 further comprising the step of washing said tissue with a fresh washing liquid following said irradiation step to remove destructed donor cells.

Claim 9. (Previously Presented) The method of Claim 10 wherein said native tissue to be treated has been pre-treated to facilitate the removal of donor cells.

Claim 10. **(Currently Amended)** A method of decellularizing native tissue of mammalian origin comprising irradiating with microwaves tissue immersed in a treating solution containing a detergent while maintaining the temperature of the tissue in the range between O°C and 40°C, ~~whereby said tissue is decellularized~~until essentially no residual cell nuclei are observed on microscopic examination of the tissue.

Claim 11. **(Previously Presented)** The method of Claim 10 wherein said tissue is immersed in said treating solution received in a microwave-transmitting container which, is, in turn, in heat-exchange contact with a coolant liquid received in a microwave-transmitting vessel, and wherein said tissue is irradiated with microwaves in a microwave oven while circulating said coolant liquid through a cooling apparatus provided externally of the microwave oven.